Measurements recorded on:- 10/04/19

PRE-MEASUREMENTS

Name Of work : -Improvement to Roads and Drains at Tirumenahalli and Surrounding area in Ward No.05

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
7	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)										
	For DBM			Cum							
	Thirumenahalli										
	Main Road										
	0.00	4.00		1	4.00	5.80	6.00	5.90		23.60	
	4.00	19.00		1	15.00	6.00	6.50	6.25		93.75	
	19.00	34.00		1	15.00	6.50	5.50	6.00		90.00	
	34.00	38.00		1	4.00	5.50	6.00	5.75		23.00	
	38.00	53.00		1	15.00	6.00	6.50	6.25		93.75	
	53.00	68.00		1	15.00	6.50	5.80	6.15		92.25	
	68.00	83.00		1	15.00	5.80	6.50	6.15		92.25	
	83.00	98.00		1	15.00	6.50	6.50	6.50		97.50	
	98.00	110.00	10/4	1	12.00	6.50	5.80	6.15		73.80	
	110.00	115.00		1	5.00	5.80	6.00	5.90		29.50	
	Venugopalaswamy Temple Road										
	0.00	4.00		1	4.00	3.60	3.60	3.60		14.40	
	4.00	19.00		1	15.00	3.60	3.60	3.60		54.00	
	19.00	34.00		1	15.00	3.60	4.00	3.80		57.00	
	34.00	44.00		1	10.00	4.00	4.50	4.25		42.50	
	44.00	48.00		0	4.00	0.00	0.00	4.30		0.00	
	48.00	63.00		1	15.00	4.60	4.70	4.65		69.75	
	63.00	78.00		1	15.00	4.70	6.00	5.35		80.25	
	78.00	93.00		1	15.00	6.00	5.50	5.75		86.25	
	93.00	105.00	10/4	1	12.00	5.50	5.60	5.55		66.60	
	105.00	110.00		1	5.00	5.60	5.80	5.70		28.50	
	2nd Cross Road										
	0.00	15.00		1	15.00	4.00	4.30	4.15		62.25	
	15.00	30.00		1	15.00	4.30	4.30	4.30		64.50	
	30.00	45.00		1	15.00	4.30	4.50	4.40		66.00	
	45.00	60.00		1	15.00	4.50	4.50	4.50		67.50	
	60.00	70.00	10/4	1	10.00	4.50	4.70	4.60		46.00	
	For Laying BC										
	Thirumenahalli										
	Main Road										
	0.00	4.00		1	4.00	5.80	6.00	5.90		23.60	
	4.00	19.00		1	15.00	6.00	6.50	6.25		93.75	
	19.00	34.00		1	15.00	6.50	5.50	6.00		90.00	
	34.00	38.00	10/4	1	4.00	5.50	6.00	5.75		23.00	
	38.00	53.00		1	15.00	6.00	6.50	6.25		93.75	

Consultant

Assistant Engineer

Assistant Executive Engine

Measurements recorded on:- 11/04/19

PRE-MEASUREMENTS

Name Of work : -Improvement to Roads and Drains at Tirumenahalli and Surrounding area in Ward No.05

BOQ Item No	Description Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	53.00	68.00		1	15.00	6.50	5.80	6.15		92.25	
	68.00	83.00		1	15.00	5.80	6.50	6.15		92.25	
	83.00	98.00		1	15.00	6.50	6.50	6.50		97.50	
	98.00	110.00		1	12.00	6.50	5.80	6.15		73.80	
	110.00	115.00		1	5.00	5.80	6.00	5.90		29.50	
	Venugopalaswamy Temple Road										
	0.00	4.00		1	4.00	3.60	3.60	3.60		14.40	
	4.00	19.00		1	15.00	3.60	3.60	3.60		54.00	
	19.00	34.00		1	15.00	3.60	4.00	3.80		57.00	
	34.00	44.00		1	10.00	4.00	4.50	4.25		42.50	
	44.00	48.00		0	4.00	0.00	0.00	4.30		0.00	
	48.00	63.00		1	15.00	4.60	4.70	4.65		69.75	
	63.00	78.00		1	15.00	4.70	6.00	5.35		80.25	
	78.00	93.00		1	15.00	6.00	5.50	5.75		86.25	
	93.00	105.00		1	12.00	5.50	5.60	5.55		66.60	
	105.00	110.00		1	5.00	5.60	5.80	5.70		28.50	
	2nd Cross Road										
	0.00	15.00		1	15.00	4.00	4.30	4.15		62.25	
	15.00	30.00		1	15.00	4.30	4.30	4.30		64.50	
	30.00	45.00		1	15.00	4.30	4.50	4.40		66.00	
	45.00	60.00		1	15.00	4.50	4.50	4.50		67.50	
	60.00	70.00		1	10.00	4.50	4.70	4.60		46.00	
	Cross Road										
	Road Cut										
	0.00	15.00		1	15.00			1.10		16.50	
	15.00	30.00		1	15.00			1.10		16.50	
	30.00	45.00		1	15.00			1.10		16.50	
	45.00	60.00		1	15.00			1.10		16.50	
	60.00	75.00		1	15.00			1.10		16.50	
	75.00	90.00		1	15.00			1.10		16.50	
	90.00	105.00		1	15.00			1.10		16.50	
	105.00	120.00		1	15.00			1.10		16.50	
	120.00	133.00		1	13.00			1.10		14.30	
	Cross Road										
	Road Cut										
	0.00	15.00		1	15.00			1.10		16.50	
	15.00	30.00		1	15.00			1.10		16.50	
	30.00	45.00		1	15.00			1.10		16.50	
	45.00	60.00		1	15.00			1.10		16.50	
	60.00	75.00		1	15.00			1.10		16.50	
	75.00	90.00		1	15.00			1.10		16.50	
	90.00	105.00		1	15.00			1.10		16.50	
	105.00	120.00		1	15.00			1.10		16.50	
	120.00	133.00		1	13.00			1.10		14.30	

Consultant

Assistant Engineer

Assistant Excecutive Engineer

Measurements recorded on:- 12/04/19

PRE-MEASUREMENTS

Name Of work : -Improvement to Roads and Drains at Tirumenahalli and Surrounding area in Ward No.05

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	Cross Road										
	Road Cut										
	0.00	15.00		1	15.00			1.10		16.50	
	15.00	30.00		1	15.00			1.10		16.50	
	30.00	45.00		1	15.00			1.10		16.50	
	45.00	60.00		1	15.00			1.10		16.50	
	60.00	75.00		1	15.00			1.10		16.50	
	75.00	90.00		1	15.00			1.10		16.50	
	90.00	105.00		1	15.00			1.10		16.50	
	105.00	120.00		1	15.00			1.10		16.50	
	120.00	133.00		1	13.00			1.10		14.30	
	Cross Road										
	Road Cut										
	0.00	15.00		1	15.00			1.10		16.50	
	15.00	30.00		1	15.00			1.10		16.50	
	30.00	45.00		1	15.00			1.10		16.50	
	45.00	60.00		1	15.00			1.10		16.50	
	60.00	75.00		1	15.00			1.10		16.50	
	75.00	90.00		1	15.00			1.10		16.50	
	90.00	105.00		1	15.00			1.15		17.25	
	105.00	120.00		1	15.00			1.20		18.00	
	120.00	135.00		1	15.00			1.20		18.00	
	135.00	150.00		1	15.00			1.20		18.00	
	150.00	165.00		1	15.00			1.20		18.00	
	165.00	180.00		1	15.00			1.20		18.00	
	180.00	190.00		1	10.00			1.20		12.00	
								Total Qty		**3686.95**	**Sq-m**

Checked

Consultant

Assistant Engineer

Assistant Excecutive Engineer 12/04/19

Measurements recorded on:- 15/04/19

DETAILED-MEASUREMENTS

Name Of work : -Improvement to Roads and Drains in Kogilu Layout and Surrounding area in Ward No.05

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks	Rate	Amount
6	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-											
	Pre - Measurement Quantity Page no 8								2994.45			
	Quantity to be Paid								2992.40			
									2992.40	**Sq-m**	**29.76**	**89068.19**
7	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)											
	Pre - Measurement Quantity Page no 9 to 10								5826.35			
	Quantity to be Paid								5826.35			
									5826.35	**Sq-m**	**13.74**	**80040.07**
E2	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.163 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)											
	Pre - Measurement Quantity Page no 11								141.60			
	Quantity to be Paid								141.60			
									141.60	**cum**	**8245.37**	**1167503.17**
8	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)											
	For Laying BC		Cum									
	Kogilu Main Road											
	0.00	11.00		1	11.00	9.30	8.00	8.65	0.04	3.81		
	11.00	26.00		1	15.00	8.00	6.50	7.25	0.04	4.35		
	26.00	41.00		1	15.00	6.50	6.50	6.50	0.04	3.90		
	41.00	56.00		1	15.00	6.50	6.40	6.45	0.04	3.87		
	56.00	71.00		1	15.00	6.40	6.40	6.40	0.04	3.84		
	71.00	86.00		1	15.00	6.40	6.40	6.40	0.04	3.84		
	86.00	101.00		1	15.00	6.40	6.30	6.35	0.04	3.81		
	101.00	116.00		1	15.00	6.30	6.40	6.35	0.04	3.81		
	116.00	131.00		1	15.00	6.40	6.00	6.20	0.04	3.72		
	131.00	146.00		1	15.00	6.00	6.00	6.00	0.04	3.60		
	146.00	161.00		1	15.00	6.00	5.90	5.95	0.04	3.57		

15/4

Consultant

Assistant Engineer
15/04/19

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Measurements recorded on:- 15/04/19.

DETAILED-MEASUREMENTS

Name Of work : -Improvement to Roads and Drains in Kogilu Layout and Surrounding area in Ward No.05

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks	Rate	Amount
	161.00	176.00		1	15.00	5.90	6.00	5.95	0.04	3.57			
	176.00	191.00		1	15.00	6.00	6.00	6.00	0.04	3.60			
	191.00	206.00		1	15.00	6.00	6.00	6.00	0.04	3.60			
	206.00	221.00		1	15.00	6.00	6.00	6.00	0.04	3.60			
	221.00	236.00		1	15.00	6.00	6.50	6.25	0.04	3.75			
	236.00	251.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	251.00	266.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	266.00	281.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	281.00	296.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	296.00	311.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	311.00	326.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	326.00	341.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	341.00	356.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	356.00	371.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	371.00	386.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	386.00	401.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	401.00	416.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	416.00	431.00		1	15.00	6.50	6.50	6.50	0.04	3.90			
	431.00	440.00		1	9.00	6.50	6.50	6.50	0.04	2.34			
	9th B Cross Road												
	0.00	10.00		1	10.00	4.00	4.00	4.00	0.04	1.60			
	10.00	20.00		1	10.00	4.00	4.00	4.00	0.04	1.60			
	3rd Cross Road												
	0.00	10.00		1	10.00	4.00	4.00	4.00	0.04	1.60			
	10.00	18.20		1	8.20	4.00	4.60	4.30	0.04	1.41			
	18.20	20.00		1	1.80	4.60	3.50	4.05	0.04	0.29			
								Total Qty		**119.78**			
								Total Qty		**119.70**	**Cu-m**	**8770.02**	**1049771.78**
9	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)												
	Kogilu Main Road			**Sqm**									
	Edge Line			2	440.00			0.10	--	88.00			
	Center Line			1	440.00			0.10	--	22.00			
	9th B Cross Road												
	Edge Line			2	20.00			0.10	--	4.00			
	Center Line			1	20.00			0.10	--	1.00			
	3rd Cross Road												
	Edge Line			2	20.00			0.10	--	4.00			
	Center Line			1	20.00			0.10	--	1.00			
								Total Qty		**120.00**	**Sq-m**	**586.14**	**70336.51**

Consultant

Assistant Engineer
15/04/19

Assistant Excecutive Engineer